CLAIMS

What is Claimed is:

1. A system for providing at least near continuous broadcast service to a terrestrial receiver, comprising:

a plurality of satellites, each satellite in an inclined, elliptical, geosynchronous orbit, each satellite providing a portion of time of the at least near continuous broadcast service to the terrestrial receiver.

2. The system of Claim 1, wherein the plurality of satellites comprises a first satellite actively servicing the terrestrial receiver, and a second satellite, wherein an apparent position of the second satellite relative to the terrestrial receiver is substantially proximate the apparent position of the first satellite relative to the terrestrial receiver when the first satellite completes providing its portion of the broadcast service.

3. The system of Claim 1, wherein a track of the apparent position of each of the satellites relative to the terrestrial receivers when the satellite is providing its portion of the at least near continuous broadcast service is substantially closed loop.

4. The system of Claim 3, wherein the terrestrial receiver comprises an antenna having a sensitivity characteristic substantially corresponding to the track of the apparent position of each of the satellites.

5. The system of Claim 3, wherein the track of the apparent position of each of the satellites substantially corresponds to a sensitivity pattern of an antenna at the terrestrial receiver.

6. The system of Claim 1, wherein a track of the apparent position of each of the satellites relative to the terrestrial receivers when the satellite is providing its portion of the at least near continuous broadcast service is substantially teardrop-shaped.

7. The system of Claim 1, wherein the satellite orbits are characterized by an orbital inclination approximately equal to 50 degrees and an eccentricity approximately equal to 0.13.

8. The system of Claim 7, wherein the satellite orbits are further characterized by a period approximately equal to 86164 seconds, an altitude at perigee approximately equal to 30305 kilometers, and an altitude at apogee approximately equal to 41268 kilometers.

9. A receiver station for receiving at least near continuous broadcast service from a plurality of satellites in an inclined, elliptical, geosynchronous orbit, comprising:

an antenna having a sensitivity characteristic substantially corresponding to the track of the apparent position of each of the satellites.

10. The receiver station of Claim 9, wherein the receiver antenna comprises a reflector having a focal line and a focal point on the focal line and a head, wherein the head is disposed offset from the focal point.

11. The receiver station of Claim 10, wherein the head is disposed offset from the focal line.

12. The receiver station of Claim 11, wherein the reflector is approximately 18 centimeters in diameter, and the head is disposed approximately 7 inches offset from the focal point and approximately 4 inches offset from the focal line.

13. The receiver station of Claim 12, further comprising a second head disposed substantially at the focal point.

14. The receiver station of Claim 13, wherein the second head receives signals from a geostationary satellite.

15. The receiver station of Claim 9, wherein the plurality of satellites comprises a first satellite actively servicing the terrestrial receiver, and a second satellite, wherein the apparent position of the second satellite relative to the terrestrial receiver is substantially proximate the apparent position of the first satellite relative to the terrestrial receiver when the first satellite completes providing its portion of the broadcast service.

16. A method of providing at least near continuous broadcast service to a terrestrial receiver, comprising the steps of:

providing a signal having a portion of the continuous broadcast service from at least one of a plurality of satellites at a time, each satellite in an inclined, elliptical, geosynchronous orbit.

17. The method of Claim 16, wherein the plurality of satellites comprises a first satellite actively servicing the terrestrial receiver, and a second satellite, wherein an apparent position of the second satellite relative to the terrestrial receiver is substantially proximate the apparent position of the first satellite relative to the terrestrial receiver when the first satellite completes providing its portion of the broadcast service.

18. The method of Claim 16, wherein a track of the apparent position of the each of the satellites relative to the terrestrial receivers when the satellite is providing its portion of the at least near continuous broadcast service is substantially closed loop.

19. The method of Claim 18, wherein the terrestrial receiver comprises an antenna having a sensitivity characteristic substantially corresponding to the track of the apparent position of each of the satellites.

20. The method of Claim 18, wherein the track of the apparent position of each of the satellites substantially corresponds to a sensitivity pattern of an antenna at the terrestrial receiver.

21. The method of Claim 16, wherein a track of the apparent position of the each of the satellites relative to the terrestrial receivers when the satellite is providing its portion of the at least near continuous broadcast service is substantially teardrop-shaped.

22. The method of Claim 16, wherein the satellite orbits are characterized by an orbital inclination approximately equal to 50 degrees and an eccentricity approximately equal to 0.13.

23. The method of Claim 20, wherein the satellite orbits are further characterized by a period approximately equal to 86164 seconds, an altitude at perigee equal to approximately 30305 kilometers, and an altitude at apogee approximately equal to 41268 kilometers.

24. A method of receiving at least near continuous broadcast service at a terrestrial receiver, comprising the steps of:

receiving a signal having a portion of the continuous broadcast service from at least one of a plurality of satellites at a time, each satellite in an inclined, elliptical, geosynchronous orbit.

25. The method of Claim 24, wherein the plurality of satellites comprises a first satellite and a second satellite and wherein the step of providing a signal having a portion of the continuous broadcast service from at least one of the plurality of satellites at a time comprises the steps of:

receiving a signal from the first satellite actively servicing the terrestrial receiver; and

receiving a signal from the second satellite when the apparent position of the second satellite relative to the terrestrial receiver is proximate the apparent position of the first satellite relative to the terrestrial receiver.

26. The method of Claim 24, wherein the plurality of satellites comprises a first satellite actively servicing the terrestrial receiver, and a second satellite, wherein an apparent position of the second satellite relative to the terrestrial receiver is proximate the apparent position of the first satellite relative to the terrestrial receiver when the first satellite completes providing its portion of the broadcast service.

27. The method of Claim 24, wherein a track of the apparent position of the each of the satellites relative to the terrestrial receivers when the satellite is providing its portion of the at least near continuous broadcast service is closed loop.

28. The system of Claim 27, wherein the terrestrial receiver comprises an antenna having a sensitivity characteristic corresponding to the track of the apparent position of each of the satellites.

29. The system of Claim 27, wherein the track of the apparent position of each of the satellites corresponds to a sensitivity pattern of an antenna at the terrestrial receiver.

30. The method of Claim 24, wherein a track of the apparent position of the each of the satellites relative to the terrestrial receivers when the satellite is providing its portion of the at least near continuous broadcast service is teardrop-shaped.

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31. The method of Claim 24, wherein the satellite orbits are characterized by an orbital inclination equal to 50 degrees and an eccentricity equal to 0.13.

32. The method of Claim 31, wherein the satellite orbits are further characterized by a period equal to 86164 seconds, an altitude at perigee equal to 30305 kilometers, and an altitude at apogee equal to 41268 kilometers.

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